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EXAMINER

CHANKONG, DOHM

ART UNIT

PAPER NUMBER

2152

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/886,071	Applicant(s) TOPFL ET AL.	
	Examiner Dohm Chankong	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- 1> This action is in response to Applicant's amendment and remarks, filed 11.22.2005. Claims 17-20 have been cancelled. Claims 1, 6, 11 and 16 have been amended. Claims 1-16 are now presented for further examination.
- 2> This is a final rejection.

Response to Arguments

- 3> Applicant's arguments and amendment with respect to claims 1-16 have been carefully considered but are not persuasive. Applicant has amended claim 1 where the system now includes a multi-layer architecture and each layer of the architecture is enabled to store retrieved information. The other independent claims have been amended with similar language. The claim language used, and in particular, the word "enabled" fails to distinguish Applicant's invention over the prior art references. The fact that each layer is enabled to store retrieved information does not necessitate that each layer must store the retrieved information. Based on the claim language, it seems as long as each layer of an architecture *could* store retrieved information, this would satisfy Applicant's amended language.

The secondary reference Pirolli discloses a multi-layer architecture and that each of his layers is enabled to store prefetched information [abstract | Figures 1-3 where : the client, proxy server and server each correspond to a different layer , and each of the layers is enabled with a local cache]. Thus the amended claim language does not distinguish the present

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invention over the prior art references and the rejections submitted in the previous Action, filed 7.05.2005 are maintained.

4> Applicant has also introduced the claim language of now cancelled dependant claims 17-20 into claim 16. However, Applicant has not addressed the rejections of these claims in his response so the rejections of the dependant claims remain in effect and are incorporated into the rejection of claim 16.

5> Additionally, Applicant traverses a conclusion made in the previous action concerning proxies. Applicant's argument seems to be based on the assumption that such a conclusion was along the lines of an "Official Notice". However, the conclusion was a result of the teaching cited in the Pirolli reference, that expressly disclosed using a proxy server within the context of prefetching and caching information items. See Official Action, page 4, section 5.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6> Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or

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with which it is most nearly connected, to make and/or use the invention. Specifically, Applicant's amendment reframes the invention within a "multi-layer architecture" and "enabling the storage" of prefetched information "at all layers of the multi-layer architecture".

As there is nothing in the claims that further define or clarify what Applicant means by "layers" within the context of the invention, Examiner turned to Applicant's specification. Examiner has carefully read the specification and was unable to find supporting language for enabling storage of the information at all layers of the architecture. Presumably, the claim language of a multi-layer architecture is represented by the "layers" illustrated in Figure 1. It should be noted, on its face, the figure only illustrates two of the layers having any means of storage. Further, paragraph [15] discloses the purpose of two of the layers, the EAI and middleware applications, as integrating other applications on the server with the data stored in the legacy systems. There is no mention that these layers could, or would be enabled to, store any of the data as it passes through to the server. Paragraphs [4] and [22] of the specification state that the predicted items are stored in a cache of the server and do not disclose storing the items in any other location.

Therefore, Applicant's amendment of enabling the storage at all layers of the architecture does not seem to be supported by the specification and not in a manner that would enable one of ordinary skill in the art to make or use the invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1> Claims 1, 2, 6, 7, 11, 12 and 17 are rejected under 35 U.S.C § 103(a) as being unpatentable over Jiang et al, U.S Patent No. 6,385,641 ["Jiang"], in view of Pirolli et al, U.S Patent No. 6,098,064 ["Pirolli"], in further view of Adar et al, U.S Patent No. 6,493,702 ["Adar"].

1> As to claim 1, Jiang discloses a system for facilitating communication between a user and a network of information items [abstract], comprising:

a remote data storage device for storing the information items, wherein the information items are stored in the form of pages, and wherein the pages contain a plurality of links to other information items [Figure 1 | Figure 3];

a multi-layer architecture comprising:

a client device having a user interface program thereon, for allowing a user to interface with the network and request the information items [column 4 «lines 30-54»];

a server device, in communication with the client device and in communication with the remote storage device, for handling information requests from multiple clients and for storing information retrieved from the data storage devices locally in a server cache memory [claim 1];

a data collection module for collecting and storing successive actions of the user [column 4 «lines 20-22»].

Jiang also discloses a probability module in communication with the data collection module for calculating a probability for the desirability of the links by the particular user and for comparing the probability to a predetermined threshold value to identify predicted links and for retrieving the predicted information items associated with the links [column 6 «lines 6-34» | claim 1] but does not disclose that the predicted information is stored in a server cache memory in advance of the particular user's request for the selected information items.

Jiang also does not explicitly disclose that the user is authenticated. Jiang also does not explicitly disclose enabling storage of the predicted information on all layers of the multi-layer architecture.

2> Jiang discloses that the predicted information items are downloaded to a local client cache but does not disclose that they are stored at the server cache. However, Pirolli discloses a similar system with two embodiments, where items are predictively prefetched and cached. In one of Pirolli's embodiments, the information is cached at the client as in Jiang. But Pirolli also demonstrates that such a precaching functionality would be easily scaled to operate on a proxy server or server [Figure 1 «item 112» | column 11 «lines 18-20»]. It would have been obvious to modify Jiang's prefetching and caching routines so that the information is stored at a proxy server and not at the client as taught by this embodiment of Pirolli. The use of proxy servers is well known and ubiquitous in the art for providing a centralized means for

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storing user information and enable users to access their cached pages from any computer that is attached to the proxy.

Pirolli also discloses enabling storage of the predicted information on all layers of the multi-layer architecture [Figures 1-3 where : the client, proxy and server are all enabled with local cache to store predicted information]. It would have been obvious to one of ordinary skill in the art to incorporate Pirolli's multi-layer storage capability into Jiang's prediction system such that each device within the system can store the predicted information, enabling quicker access by the clients [see Pirolli, column 2 «lines 48-51»].

3> Adar discloses first authenticating a user, and storing actions of the authenticated user [column 3 «lines 55-62» | column 5 «lines 38-57» | column 11 «lines 5-24» | column 13 «lines 18-31»]. It would have been obvious to one of ordinary skill in the art to incorporate Adar's authentication functionality into Jiang to enable Jiang's goal of keeping track and monitoring individual usage browsing histories. Furthermore, as Jiang discloses monitoring user histories in his system, one of ordinary skill in the art would have expected some sort of identification means to recognize each user and being able to store individual user history. Adar's authentication means would provide this functionality and improve Jiang's system.

4> As to claim 2, Jiang discloses the system of claim 1, wherein the probability module updates the probabilities assigned to the links with each successive user activity [column 5 «lines 23-57»].

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5> As per claims 6, 7, 11, 12, and 17, they do not teach or further define over the limitations recited in claims 1 and 2. Therefore claims 6, 7, 11, 12, 16 and 17 are also rejected for the same reasons as set forth in claims 1 and 2, supra.

6> Claims 3-5, 8-10 and 13-16 are rejected under 35 U.S.C 103(a) as being unpatentable over Jiang, Pirolli and Adar, as applied to claim 1 above, in view of Barrett et al, U.S Patent No. 5,727,129 ["Barrett"].

7> Barrett was cited by Applicant in IDS #4, dated 1.8.2002.

8> As to claim 3, Jiang does not disclose a system wherein the probability module aborts retrieving the predicted information items if the user requests an information item other than the predicted information items.

9> Barrett teaches a network data communication system wherein a probability module aborts the retrieval of predicted information items if the user requests an information item other than the predicted information items [abstract | Figure 7 <items 58, 64> | column 9 <lines 1-16>]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the functionality of module-initiated abortion of the retrieval of predicted information items in Jiang's probability module. One would have been motivated to do this implementation to prevent unnecessary downloading of unwanted content in Jiang's system.

10> As to claim 4, Jiang does not disclose a system wherein the probability module continues retrieving the predicted information items from the remote data storage devices and storing the predicted information items in the server cache memory if the user requests the predicted information item.

11> Barrett teaches a system wherein the probability module continues retrieving the predicted information items from the remote data storage devices and storing the predicted information items in the server cache memory if the user requests the predicted information item [abstract | column 9 <lines 1-16>]. It would have been obvious to one of ordinary skill in the art to include the functionality of Barrett's probability module into Jiang' module to increase the amount of control the module has over the prefetching of predicted data. One would have been motivated to combine these teachings to allow the module to anticipate user actions, and if correctly predicted, to continue with the downloading of the anticipated content.

12> As to claim 5, Jiang does not disclose the probability module downloading the user requested information item to the client from the server cache memory.

13> Barrett discloses downloading the user requested information item to the client from the server cache memory [Figure 2 «item 24» | column 8 «lines 2-21»]. It would have been obvious to one of ordinary skill in the art to incorporate Barrett's server cache memory into

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Jiang's prefetch system to enable clients to retrieve precached items from a proxy server.

14> As to claims 8-10 and 13-15, they do not teach or further define over the limitations recited in claims 3-5. Therefore, claims 8-10 and 13-15 are also rejected for the same reasons as set forth in claims 3-5, supra.

7> As to claim 16, as it does not teach or further define over the previously claimed limitations, it is similarly rejected for at least the same reasons set forth for claims 1-5, supra.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is 571.272.3942. The examiner can normally be reached on Monday-Thursday [7:00 AM to 5:00 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571.272.3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DC



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PRIMARY EXAMINER